

- 29 -

Abstract

A method to follow the progression of metastasis of a primary tumor, which method comprises removing fresh organ tissues from a vertebrate subject which has been
5 modified to contain tumor cells that express GFP and observing the excised tissues for the presence of fluorescence is disclosed. The fluorescence can also be monitored by observing the tissues *in situ*. Vertebrate subjects which contain GFP producing tumors are useful models to study the mechanism of metastasis, as well as to evaluate candidate protocols and drugs. In addition, subjects already harboring tumors can be treated so as
10 to modify the endogenous tumors to contain GFP. This permits clinical applications. Finally, by injecting a contrast dye into a subject harboring a GFP-labeled tumor, angiogenesis in the tumor can be observed directly.